

MARINE POLLUTION BULLETIN

**List of Contents and Author Index
Volume 39, 1999**

MARINE POLLUTION BULLETIN

**The International Journal for Marine Environmental Scientists,
Engineers, Administrators, Politicians and Lawyers.**

The **MARINE POLLUTION BULLETIN** sets out to cover all aspects of the environmental conditions of estuaries, seas and oceans. The journal welcomes news, comment, reviews, and research reports, not only on the threat of noxious substances to marine life but also on the productivity, processes and functions of the marine environment, and the effects of mankind (including management) on these. It publishes accounts of economic and legal as well as scientific aspects of marine pollution.

Author Service Department

For queries relating to the general submission of articles (including electronic text and artwork) and the status of accepted manuscripts, please contact the Author Service Department: E-mail: authors@elsevier.co.uk; Fax: +44 (0) 1865 843905; Tel: +44 (0) 1865 843900.

Publication information: Marine Pollution Bulletin (ISSN 0025-326X). For 1999, volumes 38 and 39 are scheduled for publication. Subscription prices are available upon request from the Publisher or from the Regional Sales Office nearest you or from this journal's website (<http://www.elsevier.nl/locate/marpolbul>). Further information is available on this journal and other Elsevier Science products through Elsevier's website: (<http://www.elsevier.nl>). Subscriptions are accepted on a prepaid basis only and are entered on a calendar year basis. Issues are sent by standard mail (surface within Europe, air delivery outside Europe). Priority rates are available upon request. Claims for missing issues should be made within six months of the date of dispatch.

Periodicals postage is paid at Rahway, NJ. Marine Pollution Bulletin (ISSN 0025-326X) is published in two volumes, one with monthly issues, and the second with up to 12 special issues by Elsevier Science Ltd., The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, UK. The US subscription price is \$821.00 per year.

POSTMASTER: Send address corrections to: Marine Pollution Bulletin, Elsevier Science, Customer Support Department, PO Box 945, New York, NY 10159-0945.

Distributed in the USA by Mercury Airfreight International, 365 Blair Road, Avenel, NJ 07001.

CONTENTS OF VOLUME 39

Numbers 1-12

- | | | |
|----------------|-----|---|
| Editorial | 1 | Introduction to the Special Issue
<i>R. S. S. Wu</i> |
| Keynote Papers | 3 | Using Science for Better Protection of the Marine Environment
<i>J. S. Gray</i> |
| | 11 | Eutrophication, Water Borne Pathogens and Xenobiotic Compounds: Environmental Risks and Challenges
<i>R. S. S. Wu</i> |
| | 23 | Quality Assurance in Environmental Monitoring
<i>G. E. Batley</i> |
| | 32 | Ecological Significance of Endocrine Disruption in Marine Invertebrates
<i>M. H. Depledge and Z. Billinghamurst</i> |
| | 39 | Biomonitoring the Health of Coastal Marine Ecosystems – The Roles and Challenges of Microscale Toxicity Tests
<i>P. G. Wells</i> |
| | 48 | Necessity of Defining Biomarkers for Use in Ecological Risk Assessments
<i>D. Schlenk</i> |
| | 54 | Importance of Internal Biotic Concentrations in Risk Evaluations with Aquatic Systems
<i>D. W. Connell, Y. Chaisuksant and J. Yu</i> |
| | 62 | Butyltin Contamination in Marine Mammals – A Review
<i>S. Tanabe</i> |
| | 73 | Application of Numerical Models in Marine Pollution Research in China
<i>Su. Jilan and D. Lixian</i> |
| | 80 | Marine Pollution Prevention and Management in the East Asian Seas: A Paradigm Shift in Concept, Approach and Methodology
<i>C. Thia-Eng</i> |
| Ecotoxicology | 89 | The Use of Aquatic Macrophyte Ecotoxicological Assays in Monitoring Coastal Effluent Discharges in Southern Australia
<i>T. R. Burridge, M. Karistianos and J. Bidwell</i> |
| | 97 | Aspects of Assaying Sediment Toxicity in Irish Estuarine Ecosystems
<i>P. A. Byrne and J. O'Halloran</i> |
| | 106 | Effect of Copper on Activity and Feeding in the Subtidal Prosobranch <i>Babylonia lutosa</i> (Lamarck) (Gastropoda: Buccinidae)
<i>S. G. Cheung and L. S. Wong</i> |
| | 112 | Biomarkers for TBT Immunotoxicity Studies on the Cultivated Clam <i>Tapes philippinarum</i> (Adams and Reeve, 1850)
<i>F. Cima, M. G. Marin, V. Matozzo, L. Da. Ros and L. Ballarin</i> |
| | 116 | The Effects of Mercury Exposure on the Surface Morphology of Gill Filaments in <i>Perna perna</i> (Mollusca: Bivalvia)
<i>M. A. Gregory, R. C. George, D. J. Marshall, A. Anandraj and T. P. McChurg</i> |

- 122 A Case Study on Identifying the Toxicant in Effluent Discharged from a Chemical Plant
H. Jin, X. Yang, D. Yin and H. Yu
- 126 Effects of Animal Size on Concentrations of Metallothionein and Metals in Periwinkles *Littorina littorea* Collected from the Firth of Clyde, Scotland
K. M. Y. Leung and R. W. Furness
- 137 Biochemical and Physiological Responses in Atlantic Salmon (*Salmo salar*) Following Dietary Exposure to Copper and Cadmium
A.-K. Lundebye, M. H. G. Berntssen, S. E. W. Bonga and A. Maage
- 145 Multi-variate Analysis of Biomarker Responses in *Mytilus edulis* and *Carcinus maenas* from the Tees Estuary (UK)
K. N. Astley, H. C. Meigh, G. A. Glegg, J. Braven and M. H. Depledge
- 155 Expression of Mammalian Metallothionein-I Gene in Cyanobacteria to Enhance Heavy Metal Resistance
Z. Chen, L. Ren, Q. Shao, D. Shi and B. Ru
- 159 Biokinetics of Radiocobalt in the Asteroid *Asterias rubens* (Echinodermata): Sea Water and Food Exposures
M. Warnau, S. W. Fowler and J.-L. Teyssié
- 165 A Comparison of Growth Biomarkers for Assessing Sublethal Effects of Cadmium on a Marine Gastropod, *Nassarius festivus*
K. T. Wo, P. K. S. Lam and R. S. S. Wu
- 174 Assessment of the Comparative Toxicity of Sewage Effluent from 10 Sewage Treatment Plants in the Area of Sydney, Australia using an Amphipod and Two Sea Urchin Bioassays
J. G. Woodworth, C. King, A. G. Miskiewicz, E. Laginestra and J. Simon
- 179 Effects of Wastewater-borne Heavy Metals on Mangrove Plants and Soil Microbial Activities
M. W. Yim and N. F. Y. Tam
- Eutrophication and Nutrient Enrichment 187 Eutrophication Dynamics of Tolo Harbour, Hong Kong
J. H. W. Lee and F. Arega
- 193 Nutrient Behavior and Productivity in a River System Affected by Fishpond Effluents
D. G. Galope-Bacaltos, M. L. San Diego-McGlone, G. S. Jacinto and C. L. Villanoy
- 200 An Estimate on External Fluxes of Phosphorus and its Environmental Significance in Xiamen Western Sea
H. Hong, S. Shang and B. Huang
- 205 Alkaline Phosphatase Activity and Utilization of Dissolved Organic Phosphorus by Algae in Subtropical Coastal Waters
B. Huang and H. Hong
- 212 Bioassessment Techniques for Monitoring of Eutrophication and Nutrient Limitation in Coastal Ecosystems
J. E. Lyngby, S. Mortensen and N. Ahrensberg
- 224 Nitrogenous Excretion of *Penaeus monodon* Postlarvae Fed with Different Diets
F. Shishehchian, F. M. Yusoff, H. Omar and M. S. Kamarudin

Pollution
Monitoring

- 229 The GEF/UNDP/IMO Malacca Straits Demonstration Project: Sources of Pollution
A. R. Abdullah, N. M. Tahir, T. S. Loong, T. M. Hoque and A. H. Sulaiman
- 234 Metal Concentrations in Tissues of Rabbitfish (*Siganus oramin*) Collected from Tolo Harbour and Victoria Harbour in Hong Kong
L. M. So, R. Y. H. Cheung and K. M. Chan
- 239 Bioaccumulation of Sediment-Bound Heavy Metals in Grey Mullet, *Liza macrolepis*
M.-H. Chen and C.-Y. Chen
- 245 Antibiotic Resistance and Plasmid Profiles of *Vibrio* Isolates from Cultured Silver Sea Bream, *Sparus sarba*
J. Li, J. Yie, R. W. T. Foo, J. M. L. Ling, H. Xu and N. Y. S. Woo
- 250 Development of a Capillary Zone Electrophoretic Method for the Rapid Separation and Detection of Hepatotoxic Microcystins
P. C. H. Li, S. Hu and P. K. S. Lam
- 255 Clam Transplantation and Stress-Related Biomarkers as Useful Tools for Assessing Water Quality in Coastal Environments
C. Nasci, L. Da Ros, G. Campesan, E. S. Van Vleet, M. Salizzato, L. Sperti and B. Pavoni
- 261 Cytological and Physiological Biomarker Responses from Green Mussels, *Perna viridis* (L.) Transplanted to Contaminated Sites in Hong Kong Coastal Waters
S. Nicholson
- 269 Concentration of 7 Heavy Metals in Sediments and Mangrove Root Samples from Mai Po, Hong Kong
R. G. Ong Che
- 280 Imposex in *Morula Granulata* as Bioindicator of Tributyltin (TBT) Contamination in the Dampier Archipelago, Western Australia
T. J. Reitsema and J. T. Spickett
- 285 Multiple Discriminant Analysis of Marine Sediment Data
P. K. S. Shin and K. Y. S. Fong
- 295 Imposex in *Thais gradata* and *Chicoreus capucinus* (Mollusca, Neogastropoda, Muricidae) from the Straits of Johor: A Case Study using Penis Length, Area and Weight as Measures of Imposex Seveing
K. S. Tan
- 304 Spatial and Temporal Variations of Metals in Richards Bay Harbour (RBH), South Africa
L. A. Vermeulen and V. Wepener
- 308 Dune Mining and the Nhlabane Estuary, South Africa: the Effect of a Dredger Crossing on the Zoobenthic Community
L. Vivier and D. P. Cyrus
- 315 Some Observations on the Changes of Physico-Chemical and Biological Factors in Victoria Harbour and Vicinity, Hong Kong, 1988-1996
Y.-K. Yung, K. Yau, C. K. Wong, K. K. Chan, I. Yeung, C. S. W. Kueh and M. J. Broom

- 326 Time Trend of BHCs and DDTs in a Sedimentary Core in Macao Estuary, Southern China
G. Zhang, Y. S. Min, B. X. Mai, G. Y. Sheng, J. M. Fu and Z. S. Wang
- 331 A Recent Shellfish Toxin Investigation in China
M. Zhou, J. Li, B. Luckas, R. Yu, T. Yan, C. Hummert and S. Kastrup
- Risk Assessment and Risk Management 335 Aquatic Ecological and Human Health Risk Assessment of Chemicals in Wet Weather Discharges in the Sydney Region, New South Wales, Australia
G. Bickford, J. Toll, J. Hansen, E. Baker and R. Keessen
- 346 Organochlorines in Hong Kong Fish
H. M. Chan, K. M. Chan and M. Dickman
- 352 Mercury in Human Hair and Fish: is there a Hong Kong Male Subfertility Connection?
M. D. Dickman, K. M. C. Leung and L. C. L. Koo
- 357 Impact of Mussel Culture on Macrobenthic Community Structure in Saldanha Bay, South Africa
J. M. E. Stenton-dozey, L. F. Jackson and A. J. Busby
- Trace organics 367 Organochlorine Pesticide Residues in Soils and Sediments of the Herbert and Burdekin River Regions, North Queensland – Implications for Contamination of the Great Barrier Reef
J. E. Cavanagh, K. A. Burns, G. J. Brunskill and R. J. Coventry
- 376 Distribution and Fate of Organochlorine Pollutants in the Pearl River Estuary
H. Hong, W. Chen, L. Xu, X. Wang and L. Zhang
- 383 Contamination by Persistent Organochlorines in Small Cetaceans from Hong Kong Coastal Waters
T. B. Minh, M. Watanabe, H. Nakata, S. Tanabe and T. A. Jefferson
- 393 Contamination of *Tris*(4-Chlorophenyl) Methane and *Tris*(4-Chlorophenyl) Methanol in Marine Mammals from Russia and Japan: Body Distribution, Bioaccumulation and Contamination Status
M. Watanabe, S. Tanabe, N. Miyazaki, E. A. Petrov and W. M. Jarman

